

## AMENDMENTS

### In the Claims:

Please amend the claims as follows.

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12. (Amended) A method for modeling a technical process of an engineering plant, comprising:

measuring an initial set of empirical values at various steps of a technical process using sensors while said technical process is operating based on a predetermined set of parameters;

screening out a set of empirical values from the initial set of empirical values for reducing a size of the initial set of empirical values to obtain a screened set of empirical values by:

dividing the initial set of empirical values into classes based on a predefined criteria, followed by assessing each empirical value in each class with respect to a predefined first threshold value, and if a result of said assessing step lies below said predefined first threshold value, then screening out said empirical value, further assessing each class with respect to a predefined second threshold value, if a result of said assessing step lies below the second predefined threshold value, then, screening out said class; and

modeling said technical process using said screened set of empirical values to obtain a model result, wherein

the predefined criteria is said dividing step is based on the predetermined first set of parameters.

13. (Amended) A method for modeling a technical process of an engineering plant, comprising:

measuring an initial set of empirical values at various steps of a technical process using sensors while said technical process is operating based on a predetermined set of parameters;

screening out a set of empirical values from the initial set of empirical values for reducing a size of the initial set of empirical values to obtain a screened set of empirical values by:

dividing the initial set of empirical values into classes based on a predefined criteria, followed by assessing each empirical value in each class with respect to a predefined first threshold value, and if a result of said assessing step lies below said predefined first threshold value, then screening out said empirical value, further assessing each class with respect to a predefined second threshold value, if a result of said assessing step lies below the second predefined threshold value, then, screening out said class; and

modeling said technical process using said screened set of empirical values to obtain a model result;

determining an empirical value associated with a transient phase of the technical process resulting from a modification of the predetermined set of parameters; and

screening out the empirical value associated with the transient phase.

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18. (Amended) A method for modeling a technical process of an engineering plant, comprising:

measuring an initial set of empirical values at various steps of a technical process using sensors while said technical process is operating based on a predetermined set of parameters;

screening out a set of empirical values from the initial set of empirical values for reducing a size of the initial set of empirical values to obtain a screened set of empirical values by:

dividing the initial set of empirical values into classes based on a predefined criteria, followed by assessing each empirical value in each class with respect to a predefined first threshold value, and if a result of said assessing step lies below said predefined first threshold value, then screening out said empirical value, further assessing each class with respect to a

predefined second threshold value, if a result of said assessing step lies below the second predefined threshold value, then, screening out said class; and

modeling said technical process using said screened set of empirical values to obtain a model result; and

screening out a class with fewer number of empirical values than a predefined number.

*B2*  
19. (Amended) A method for modeling a technical process of an engineering plant, comprising:

measuring an initial set of empirical values at various steps of a technical process using sensors while said technical process is operating based on a predetermined set of parameters;

screening out a set of empirical values from the initial set of empirical values for reducing a size of the initial set of empirical values to obtain a screened set of empirical values by:

dividing the initial set of empirical values into classes based on a predefined criteria, followed by assessing each empirical value in each class with respect to a predefined first threshold value, and if a result of said assessing step lies below said predefined first threshold value, then screening out said empirical value, further assessing each class with respect to a predefined second threshold value, if a result of said assessing step lies below the second predefined threshold value, then, screening out said class; and

modeling said technical process using said screened set of empirical values to obtain a model result, wherein

the result of said assessing step is a difference of the empirical value in the class with the predefined first threshold value.